



Form PTO-1449 (Modified)	Atty Docket No. 01340P081	Application No. 09/710,703
List of Patents & Publications Statement	Applicant(s): John Josef Hench, et al.	
(Use several sheets if necessary)	Filing Date: November 10, 2000	Group No.: 2661 2642

U.S. PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Name	Class	Sub-class	Filing Date (if appropriate)
✓	AA	5,226,041	07/06/1993	Waclawsky et al.	1	1	RECEIVED MAY 09 2001 Technology Center 2600
✓	AB	5,521,971	05/28/1996	Key et al.	1	1	
✓	AC	6,091,713	07/18/2000	Lechleider et al.	1	1	
✓	AD	5,926,538	07/20/1999	Deryugin et al.	1	1	
✓	AE	4,669,113	05/26/1987	Ash et al.	1	1	
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

Exam. Initials		Document Number	Date	Country	Class	Sub-class	Translation Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							
	AQ							

OTHER ART (Including Title, Author, Date, Pertinent Pages, etc.)

Exam. Initials		Document Identification
	AR	
	AS	
	AT	

Examiner: Miss & [Signature]Date Considered: 3/12/05

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication

Please type a plus sign (+) inside this box



PTO/SB/08A (10-96)

Approved for use through 10/31/99. OMB 0851-0031
Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application No	09/710,703
		Filing Date	November 10, 2000
		First Named Inventor	John Josef Hench et al.
		Group Art Unit	2661 2642
Examiner Name	Unassigned		
Sheet 1 of 9	Attorney Docket Number	001340.P08	

U.S. PATENT DOCUMENTS				
Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate
b2	6,195,594	Shah et al.	February 27, 2001	June 30, 1999
b2	5,880,959	Shah et al.	March 9, 1999	November 25, 1997
b2	6,230,062	Shah	May 8, 2001	June 30, 1999

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
	Office or Country	Number	Date			

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)		
Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	Translation? Yes/No
b2	LENNART LJUNG, IEEE Transactions on Automatic Control, Vol. AC-23, No. 5, October 1978, "Convergence Analysis of Parametric Identification Methods", pp 770-783.	No
b2	SERGIO VERDU, Cambridge University Press, "Multiuser Detection", 1998, pp 1-26, 56-66, 154-175, 384-387.	No
b2	GUANGHAN XU et al., IEEE Transactions on Signal Processing, Vol. 43, No. 12, December 1995, "A Least Squares Approach to Blind Channel Identification", pp 2982-2993.	No
b2	ALEXANDRA DUEL-HALLEN et al., IEEE Transactions on Communications, Vol. 37, No. 5, May 1989, "Delayed Decision-Feedback Sequence Estimation", pp 428-436.	No
Examiner	Date Considered	3/12/05

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box



Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute For Form 1449A/PTO (Modified 5-19-2000)		Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application No 09/710,703		
		Filing Date November 10, 2000		
		First Named Inventor John Josef Hench et al.		
		Group Art Unit 2661 2664		
		Examiner Name Unassigned		
Sheet 2 of 9		Attorney Docket Number 001340.P081		
U.S. PATENT DOCUMENTS				
Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate
FOREIGN PATENT DOCUMENTS				
Examiner Initials*	Foreign Patent Document	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
	Office or Country Number Date			
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)				
Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).			Translation? Yes/No
	K. GIRIDHAR et al., IEEE Transactions on Communications, Vol. 45, No. 4, April 1997, "Nonlinear Techniques for the Joint Estimation of Cochannel Signals", pp 473-484.			No
	LANG TONG et al., IEEE Transactions on Signal Processing, Vol. 47, No. 9, September 1999, "Joint Order Detection and Blind Channel Estimation by Least Squares Smoothing", pp 2345-2355			No
	ERIC MOULINES et al., IEEE Transactions on Signal Processing, Vol. 43, No. 2, February 1995, "Subspace Methods for the Blind Identification of Multichannel FIR Filters", pp 516-525.			No
	ALEXANDRA DUEL-HALLEN et al., IEEE Personal Communications, April 1995, "Multiuser Detection for CDMA Systems", pp 46-58.			No
Examiner	Date Considered 3/12/05			
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.				

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Please type a plus sign (+) inside this box



Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application No	09/710,703
		Filing Date	November 10, 2000
		First Named Inventor	John Josef Hench et al.
		Group Art Unit	2661 264
Examiner Name	Unassigned		
Sheet 3 of 9	Attorney Docket Number	001340.P081	

U.S. PATENT DOCUMENTS				
Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate

FOREIGN PATENT DOCUMENTS							
Examiner Initials*		Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
		Office or Country	Number	Date			

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)		
Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	Translation? Yes/No
B~	UPAMANYU MADHOW et al., IEEE Transactions on Communications, Vol. 42, No. 12, December 1994, "MMSE Interference Suppression for Direct-Sequence Spread-Spectrum CDMA" pp 3178-3188	No
B~	C. RICHARD JOHNSON, JR. et al., Proceedings of the IEEE, Vol. 86, No. 10, October 1998, "Blind Equalization Using the Constant Modulus Criterion: A Review", pp 1927-1950	No
B~	P. CIBLAT et al., "Asymptotic Analysis of Blind Cyclic Correlation Based Symbol Rate Estimation", September 2000	No
B~	DR. DENNIS J. RAUSCHMAYER, Macmillan Technology Series, "ADSL/VDSL Principles", 1999, pp 131-155.	No

Examiner <i>[Signature]</i>	Date Considered 3/12/05
-----------------------------	-------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box



PTO/SB/08A (10-98)

Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		OIPE Complete if Known			
		Application No		09/710,703	
		Filing Date		November 10, 2000	
		First Named Inventor		John Josef Hench et al	
		Group Art Unit		2642-2661	
Examiner Name		Unassigned			
Attorney Docket Number		001340.P081			
Sheet 4 of 9					
U.S. PATENT DOCUMENTS					
Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if appropriate	
FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
	Office or Country	Number	Date		
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)					
Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).				Translation? Yes/No
	LENNART LJUNG, Prentice-Hall Information and System Sciences Series, "System Identification, Theory for the User", 1987, pp 141-163, 239-263.				No
	YAAKOV BAR-SHALOM et al., Artech House, Inc., "Estimation and Tracking: Principles, Techniques, and Software", 1993, pp 450-465.				No
	International Telecommunication Union, ITU-T Telecommunication Standardization Sector of ITU, G.810, "Definitions and Terminology for Synchronization Networks", August 1996, pp 1-20				No
	ADSL Forum Technical Report TR-024 for Network Management Working Group, "DMT Line Code Specific MIB", June 1999, pp 1-7				No
Examiner	Date Considered			3/12/05	
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

RECEIVED
 OCT 01 2001
 Technology Center 2600

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Please type a plus sign (+) inside this box



PTO/SB/08A (10-96)

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application No. 09/710,703	
		Filing Date November 10, 2000	
		First Named Inventor John Josef Hench et al.	
		Group Art Unit 2642-2661	
		Examiner Name Unassigned	
Sheet 5 of 9		Attorney Docket Number 001340.P081	

U.S. PATENT DOCUMENTS

Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
	Office or Country	Number	Date			

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	Translation? Yes/No
<i>pu</i>	J. CIOFFI, EEE379A, "Digital Communication: Signal Processing Class notes, Stanford University, pp 167-174, 194-197.	No
<i>pu</i>	ARTHUR GELB et al., The Analytic Sciences Corporation, "Applied Optimal Estimation", 1974, pp 156-179.	No
<i>pu</i>	SIMON HAYKIN, Prentice Hall Information and System Sciences Series, "Adaptive Filter Theory", Third Edition, 1996, pp 772-815.	No
<i>pu</i>	IAN R. PETERSEN et al., Control Engineering, "Robust Kalman Filtering for Signal and Systems with Large Uncertainties", 1999, pp 35-55.	No

Examiner *Wm L. Davis* Date Considered **3/12/05**

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Please type a plus sign (+) inside this box



PTO/SB/08A (10-96)

Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application No.	09/710,703
		Filing Date	November 10, 2000
		First Named Inventor	John Josef Hench et al.
		Group Art Unit	2642 2681
Examiner Name	Unassigned		
Sheet 6 of 9	Attorney Docket Number	001340.P081	

RECEIVED

OCT 01 2001
Technology Center 2600

U.S. PATENT DOCUMENTS

Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Patent Document	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
	Office or Country Number Date			

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	Translation? Yes/No
B✓	STEPHEN BOYD et al., "Convex Optimization", Course Reader for EE364: Introduction to Convex Optimization with Engineering Applications, Stanford University, Winter Quarter 1996-1997, pp 1-146.	No
B✓	AMIT MATHUR, Dissertation from Electrical and Computer Engineering, University of California, Santa Barbara, "Algorithms for Cochannel Source Separation and Signal Estimation", December 1996, pp 1-165.	No
B✓	EDWARD A. LEE et al., Kluwer Academic Publishers, "Digital Communication", Second Edition, 1994, pp 408-424, 468-486.	No
B✓	THOMAS STARR et al., Prentice Hall, Communication Engineering and Emerging Technologies, "Understanding Digital Subscriber Line Technology", 1999, pp 297-354.	

Examiner <i>Mia & Dan</i>	Date Considered 3/12/05
-------------------------------	-------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature	Date
--------------------	------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Please type a plus sign (+) inside this box



PTO/SB/08A (10-98)

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Complete if Known	
	Application No. 09/710,703	
	Filing Date November 10, 2000	
	First Named Inventor John Josef Hench et al.	
	Group Art Unit 2642 2661	
Examiner Name Unassigned		
Sheet 7 of 9	Attorney Docket Number 001340.P081	

RECEIVED
 OCT 01 2001
 Technology Center 2600

U.S. PATENT DOCUMENTS				
Examiner Initials*	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate

FOREIGN PATENT DOCUMENTS							
Examiner Initials*		Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
		Office or Country	Number	Date			

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)		
Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	Translation? Yes/No
B	D. GODARD, IEEE Transaction Communications, Vol. COM-28, No. 11, November 1980, "Self-Recovering Equalization and Carrier Tracking in Two-Dimensional Data Communication Systems", pp 1867-1875.	No
B	LENNART LJUNG, PTR Prentice Hall Information and System Sciences Series, "System Identification, Theory for the User", Second Edition, 1999, pp 79-139, 197-279, 317-360.	No
B	RAÚL A. CASAS et al., Broadcasting & Cable, "Current Approaches to Blind Decision Feedback Equalization", August 1999, pp 1-52.	No
B	JOHN G. PROAKIS, McGraw Hill Series in Electrical and Computer Engineering, "Digital Communications, Third Edition, 1995, pp 267-286.	No

Examiner <i>[Signature]</i>	Date Considered 3/12/05
-----------------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Please, type a plus sign (+) inside this box

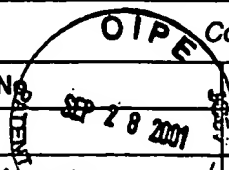


Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute For Form 1449A/PTO (Modified 5-19-2000) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Application No. 09/710,703	
	Filing Date November 10, 2000	
	First Named Inventor John Josef Hench et al.	
	Group Art Unit 2661	
	Examiner Name Unassigned	
Sheet 8 of 9	Attorney Docket Number 001340.P081	



RECEIVED
 OCT 01 2001
 Technology Center 2500

U.S. PATENT DOCUMENTS					
Examiner Initials*		U.S. Patent Document	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate
		Number			

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	Office or Country	Number	Date		

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)		
Examiner Initials*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known), (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s).	Translation? Yes/No
B~	CRAIG MICHAEL TEUSCHER, Dissertation submitted as requirement for the degree of Dr. of Philosophy in Engineering-Electrical Engineering and Computer Sciences, "Low Power Receiver Design for Portable RF Applications: Design and Implementation of an Adaptive Multiuser Detector for an Indoor, Wideband CDMA Application, Fall 1998, pp 37, 43-52	No
B~	CLAES TIDESTAV et al., Signals and Systems, Uppsala University, "Realizable MIMO Decision Feedback Equalizers", International Conference on Acoustics, Speech, and Signal Processing (ICASSP99) March 1999, Phoenix, AZ, V.5, pp 2591-2594.	No

Examiner <i>[Signature]</i>	Date Considered 3/12/05
-----------------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.





+

Patent and Trademark Office U.S. DEPARTMENT OF COMMERCE


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute For Form 1449A/PTO (Modified 5-19-2000)		Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application No	09/710,703		
		Filing Date	November 10, 2000		
		First Named Inventor	John Josef Hench et al		
		Group Art Unit	2661		
		Examiner Name	Unassigned		
Sheet 9 of 9	Attorney Docket Number	001340.P081			
U.S. PATENT DOCUMENTS					
Examiner Initials*		U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication Cited Document MM-DD-YYYY	Filing date if Appropriate
FOREIGN PATENT DOCUMENTS					
Examiner Initials*		Foreign Patent Document	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation? Yes/No
		Office or Country Number Date			
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)					
Examiner Initials*		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), publisher, city and/or country where published (if title of the item known). (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s),			Translation? Yes/No
B ²		K. SAM SHANMUGAN et al., John Wiley and Sons, "Random Signals, Detection, Estimation and Data Analysis", 1988, pp 341-377.			No
B ²		HARRY L. VAN TREES, Massachusetts Institute of Technology, "Detection, Estimation, and Modulation Theory", 1968, pp 19-163, 239-418.			
Examiner	Date Considered		3/12/05		
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

conformance and not considered. Include copy of this form with next communication to applicant.

PA 5

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 001340.P081		Application Number: 09/710,703		
Page 1 of 2		First Named Inventor: John Josef Hench, et al.		<div style="text-align: center;"> RECEIVED MAR 05 2002 Technology Center 2600 </div>		
<div style="text-align: center;">  </div>		Filing Date: November 10, 2000				
U.S. PATENT DOCUMENTS						
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (If known)			
		US5063351		Goldthorp, et al.	11/5/1991	
		US5343461		Barton, et al.	8/30/1994	
		US5858151		Boudy	12/8/1998	
		US5887032		Cioffi	03/23/1999	
		US5926538		Deryugin, et al.	7/20/1999	
		US5995566		Rickard, et al.	11/30/1999	
		US6055297		Terry	4/25/2000	
		US6160790		Bremer	12/12/2000	

FOREIGN PATENT DOCUMENTS								
Exam. Initial*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (If known)				

Examiner Signature		Date Considered	3/12/05
--------------------	---	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 001340.P081	Application Number: 09/710,703
Pg. 2 of 2		First Named Inventor: John Josef Hench, et al.	COPY OF PAPERS ORIGINALLY FILED
		Filing Date: November 10, 2000	
OTHER AND NO PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Translation ²
B ^u		PCT Search Report, PCT/US00/42097, 10 November 2000, Date of Mailing: 26 June 2001 (5 pgs.)	
B ^u		PCT Search Report, PCT/US00/30859, 10 November 2000, Date of Mailing: 27 March 2001 (5 pgs.)	
B ^u		PCT Search Report, PCT/US00/30858, 10 November 2000, Date of Mailing: 16 March 2001 (7 pgs.)	
B ^u		PCT Search Report, PCT/US00/30887, 11 November 1999, Date of Mailing: 09 August 2001 (24 pgs.)	
B ^u		PCT Search Report, PCT/US00/30967, 10 November 2000, Date of Mailing: 24 January 2001 (7 pgs.)	
B ^u		PCT Search Report, PCT/US00/31026, 10 November 2000, Date of Mailing: 22 January 2001 (7 pgs.)	
B ^u		HONIG, M.L. et al, "Suppression of Near- and Far-End Crosstalk by Linear Pre- and Post-Filtering", Selected Areas in Communications, IEEE Journal on. Vol 10 Issue 3, April 1992, pages 614-629, entire document	

Examiner Signature	<i>Anna R. Mui</i>	Date Considered	3/12/05
-----------------------	--------------------	--------------------	---------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

3

Complete if Known

Application Number	09,710,703
Filing Date	November 10, 2000
First Named Inventor	John Josef Hench
Art Unit	2661
Examiner Name	Unknown
Attorney Docket Number	6515P029

RECEIVED

APR 14 2004

Technology Center 2600

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.†	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code* (if known)			
BV		US-3,814,868	06-04-1974	Bradley	
BV		US-4,649,505	03-10-1987	Zinser, Jr. et al.	
BV		US-4,712,064	12-22-1987	Claessen	
BV		US-4,760,596	07-26-1988	Agrawal et al.	
BV		US-4,987,569	10-22-1991	Ling et al.	
BV		US-5,157,690	10-20-1992	Buttle	
BV		US-5,319,636	06-07-1994	Long et al.	
BV		US-5,329,547	07-12-1994	Ling	
BV		US-5,406,552	04-11-1995	Long et al.	
BV		US-5,548,222	08-20-1996	Jensen et al.	
BV		US-5,929,896	07-27-1999	Goodman et al.	
BV		US-5,761,614	06-02-1998	Leitch et al.	
BV		US-5,862,157	01-19-1999	Bessios	
BV		US-6,161,209	02-12-2000	Moher	
BV		US-6,172,970	01-09-2001	Ling et al.	
BV		US-6,249,762	06-19-2001	Kirsteins et al.	
BV		US-6,317,495	11-13-2001	Gaikwad et al.	
BV		US-6,377,636	04-23-2002	Paulraj et al.	
BV		US-6,434,233	08-13-2002	Bjarnason et al.	
BV		US-6,442,495	08-27-2002	Fleming-Dahl	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.†	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T*
		Country Code* - Number* - Kind Code* (if known)				
BV		EP0917314A2	05-19-1999	Dyke		
BV		EP0917314A3	10-10-2001	Dyke		
BV		WO098/52312A2	11-19-1998	Chow et al.		
BV		WO098/52312A3	11-19-1998	Chow et al.		

Examiner Signature	<i>Michael J. Davis</i>	Date Considered	3/12/05
-----------------------	-------------------------	--------------------	---------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

†Applicant's unique citation designation number (optional). *See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. *Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). *For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. *Applicant is to place a check mark here if English language Translation is attached.

Based on PTO/SB-08A (08-03) as modified by Blakely, Solokoff, Taylor & Zafman (wtr) 08/11/2003.

Send To: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450



(use as many sheets as necessary)

Sheet

2

of

3

Complete if Known

Application Number

09.710.703

Filing Date

November 10, 2000

First Named Inventor

John Josef Henc

Art Unit

2661

Examiner Name

Unknown

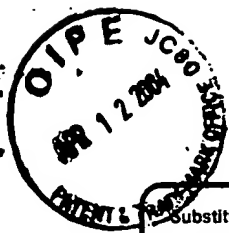
Attorney Docket Number

6515P029

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Send To: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450



Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09.710.703
				Filing Date	November 10, 2000
				First Named Inventor	John Josef Hench
				Art Unit	2661
				Examiner Name	Unknown
Sheet	3	of	3	Attorney Docket Number	6515P029

RECEIVED

APR 14 2004

Technology Center 2600

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
B ²		PETERSEN, BRENT R., et al., "Minimum Mean Square Equalization in Cyclostationary and Stationary Interference-Analysis and Subscriber Line Calculations", Student Member, IEEE Journal, Vol. 9, No. 6, August 1991, pp. 11.	
B ²		VALENTI, CRAIG F., Bellcore, "Cable Crosstalk Parameters and Models", ANSI Contribution TIE1.4/97-302 Technical Subcommittee Working Group Members, Spectral Compatibility, Morristown, NJ 07960, USA, September 22, 1997, pp. 8.	

Examiner Signature	<i>[Signature]</i>	Date Considered	3/12/05
--------------------	--------------------	-----------------	---------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

†Applicant's unique citation designation number. *Applicant is to place a check mark here if English language Translation is attached.

Based on PTO/SB/088 (08-03) as modified by Blakely, Solokoff, Taylor & Zafman (wtr) 08/11/2003.
Send To: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450